
**Air-assisted agricultural sprayers — Data
sheets —**

Part 2:
Technical specifications related to components

Pulvérisateurs agricoles à jet porté — Fiches techniques —

Partie 2: Spécifications techniques relatives aux composants



Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 13441-2 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 6, *Equipment for crop protection*.

ISO 13441 consists of the following parts, under the general title *Air-assisted agricultural sprayers — Data sheets* :

- *Part 1 : Typical layout*
- *Part 2 : Technical specifications related to components*

Annex A forms an integral part of this part of ISO 13441.

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Air-assisted agricultural sprayers — Data sheets —

Part 2:

Technical specifications related to components

1 Scope

This part of ISO 13441 establishes the technical specifications of data sheet presentation, for the preparation of documents giving information about dimensions, materials, characteristics and design of air-assisted agricultural sprayers used for the application of crop protection products in arboriculture, viticulture and hop cultivation. Use of data sheets prepared according to this part of ISO 13441 will facilitate discussion between the manufacturers of sprayers and the manufacturers of component parts and accessories.

This part of ISO 13441 does not cover mass and dimensions of the sprayer, nor information relating to the basic machine required by the manufacturer. Such information is given in ISO 13441-1.

This part of ISO 13441 is applicable during the preparation of data sheets by manufacturers or importers of air-assisted agricultural sprayers, whether mounted, trailed or self-propelled.

The list of codes to be used for the codified descriptors is given in annex A.

2 General specifications

2.1 Manufacturer

Name and address of manufacturer/distributor/importer:
.....
.....
.....
.....

2.2 Type and year of manufacture

Type:	Mounted	Trailed (p.t.o. driven)
	Self-propelled	Trailed (driven by engine)

General design of spraying and auxiliary devices (code 502):
Capacity: |
Year of manufacture:
Model:
Direct indication of the year of manufacture (explanation of code):.....
.....
Location of marking (code 101):
.....

2.3 Trade-name(s)

.....

3 Tank specifications

	Principal tank	Rinsing tank	Clean water tank
3.1 Material (code 102)			
3.2 Volume			
Nominal volume:			
Real volume:			

3.3 Dimensions

	Principal tank	Rinsing tank	Clean water tank
Length:.....	mm	mm	mm
Width:.....	mm	mm	mm
Height (to the upper edge of filling hole):.....	mm	mm	mm

3.4 Level indicator

Type (code 303):			
Indicating range:	from l to l	from l to..... l	from l to l
Graduation:.....	l	l	l
Location (code 304):.....			

3.5 Filling hole

Location (code 306):.....			
Diameter:	mm	mm	mm
Filling sieve			
material (code 102):.....			
diameter:.....	mm	mm	mm
depth:.....	mm	mm	mm
filtration surface:	mm ²	mm ²	mm ²
mesh width:.....	mm	mm	mm
Cap design (code 305):			

3.6 Agitator

Type (code 307):			
Design (code 308):			
Location (code 310):.....			

3.7 Drainage device

	Principal tank	Rinsing tank	Clean water tank
Type (code 312):.....			
Design (code 313):			
Location (code 314):			

3.8 Filling device for principal tank

Type (code 315):.....		
Design (code 316):		
Location (code 317):		
Volumetric flow rate with water:	l/min	
Shut-off valve:.....	YES	NO
location:		
Crop protection product induction unit:	YES	NO
design (code 318):.....		
location (code 319):		

3.9 Dosing devices for crop protection products

Type (code 320):.....	
Design (code 321):	
Location (code 319):	
Measuring range:.....	
Measuring accuracy:.....	

4 Pump specifications

4.1 Main pump

Manufacturer:	
Design (code 402):	
Trade-name:	
Model:	
Location (code 403):	
Drive (code 404):	
Connection:.....	
Nominal pressure:	MPa
Nominal speed:.....	r/min
Volumetric flow rate	
non-pressurised:.....	l/min
at nominal pressure:	l/min
Pressure pulsation damper:.....	YES NO
design (code 407):.....	
material (code 102):.....	

4.2 Other pumps

Function (code 405):.....	
Manufacturer:	
Design (code 402):	
Designation:.....	
Location (code 403):	
Drive (code 404):	
Connection:.....	

Nominal pressure:.....MPa

Nominal speed:.....r/min

Volumetric flow rate

non-pressurised:.....l/min

at nominal pressure: l/min

Pressure pulsation damper:.....

YES

NO

design (code 407):.....

material (code 102):.....

5 Specifications for spraying and auxiliary devices

Operating principle (code 501):

General design (code 502):

5.1 Spraying device

Number of independent sectors:.....

Total number of nozzles:

Nozzle tips

trade-name:

model:

design (code 711):

manufacturer:.....

number:.....

location (code 714):

optimum spraying pressure: MPa

spraying pressure range: from..... MPa to MPa

speed of recommended rotation (centrifugal nozzles):.....r/min

Nozzle body

designation:	
design (code 715):.....	
movement (code 716):.....	
regulation of spraying angle:.....	
material (code 102):.....	
swivel nut thread:	

Anti-drip device

designation:	
design (code 720):.....	
material (code 102):.....	
opening pressure:	MPa
closing pressure:	MPa

Individual shut-off device

design (code 721):.....	
function:	
control (code 103):.....	

Inter-nozzle supply line

design:	
material (code 102):.....	
inside diameter:	mm
outside diameter:	mm
maximum operating pressure (indicated by marking):.....	MPa

5.2 Air assistance device

5.2.1 Main fan(s)

Design (code 503):		
Inside diameter at rotor position:	mm	
Blade material (code 102):.....		
Adjustment of blade attack angle:.....	YES	NO
Number of positions:		
Inside deflectors before rotor:	YES	NO
Inside deflectors after rotor:	YES	NO
Fan drive mechanism (code 504):		
Centrifugal clutch:	YES	NO
Gear box in transmission:	YES	NO
Multiplication ratios:		
Neutral point:	YES	NO
Total air throughput (maximum):.....	m ³ /h	
Adjustment of flow rate in proportion to feed speed:	YES	NO

5.2.2 Air flow direction deflectors

Design (code 505):	
Material:	
Movement (code 506):.....	
Folding away for transport (code 508):.....	

5.2.3 Additional fan(s)

Number:	
---------------	----------------------

Design (code 507):	
Blade material (code 102):.....	
Drive mechanism:.....	
Total air throughput (maximum):	m ³ /h
Adjustment of operating height:.....	YES NO
Folding away for transport (code 508):.....	

5.2.4 Air lines for each nozzle

Total number of lines:	
Direction adjustment:.....	YES NO

5.2.5 Recuperation or reflection panels

Design (code 509):	
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6 Specifications for liquid line(s)

6.1 Suction lines

Number:.....	
Material (code 102):.....	
Design (code 801):	
Inside diameter:	mm
Length(s):	m
Maximum operating pressure (indicated by marking):.....	MPa

6.2 Pressure lines

6.2.1 From pump to central

Number:.....	
Material (code 102):.....	
Design (code 801):	

Inside diameter:	mm
Length(s):.....	m
Marked pressure:.....	MPa

6.2.2 Pressurised line(s) to spraying devices

Number:	
Material (code 102):.....	
Design (code 801):	
Inside diameter(s):	mm
Length(s):.....	m
Marked pressure:.....	MPa

6.2.3 Agitator line(s)

Number:	
Material (code 102):.....	
Design (code 801):	
Inside diameter(s):	mm
Length(s):.....	m
Marked pressure:.....	MPa

6.3 Return flow lines

Number:	
Material (code 102):.....	
Design (code 801):	
Inside diameter(s):	mm
Length(s):.....	m
Marked pressure:.....	MPa

6.4 Other lines

Number:	
Location:	
Material (code 102):	
Design (code 801):	
Inside diameter(s):	mm
Length(s):	m

7 Filter specifications

7.1 Filling filter

Material (code 102):	
Inside diameter:	mm
Length:	mm
Filtering surface:	mm ²
Mesh width:	mm

7.2 Filter on the suction line

Number:	
Design (code 803):	
Location (code 804):	
Filter element	
material (code 102):	
inside diameter:	mm
length:	mm
filtering surface:	mm ²
mesh width:	mm